

**Notice of Allowability**

Application No.

10/657,385

Examiner

ANH PHUNG

Applicant(s)

PERNER ET AL.

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Election received on April 4, 2005.
2. ☒ The allowed claim(s) is/are 1-14 and 21-23.
3. ☒ The drawings filed on 08 September 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_\_.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying Indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☒ Other Search History.

  
**ANH PHUNG**  
**PRIMARY EXAMINER**

## DETAILED ACTION

### *Examiner's amendment*

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CAR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

In the claims:

Cancel non-elected claims **15-20** and **24-26**, due to the Election without traverse.

The examiner's amendment has been made in order to place the application in a condition for allowance.

2. This Office Action is responsive to the Election received on April 4, 2005, the elected claims **1-14** and **21-23** are pending in the application, and cancel non-elected claims **15-20** and **24-26** per Examiner's amendment described above.

### *Examiner's Statement of Reasons for Allowance*

3. Claims **1-14** and **21-23** are allowed.

Perner et al. (U.S. Pat. No. 6,754,123), Ooishi et al. (U.S. Pat. No. 6,731,535), Konikiyo et al. (U.S. Pat. No. 6,567,299) and Scheuerlein et al. (U.S. Pat. No. 5,793,697) disclose a data storage device similar to that of the present application, but fail to teach:

"a first bit line comprising a distributed series diode along a length of the bit line such that each of the associated memory cells located along the first bit line is coupled

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between the distributed series diode and an associated word line" as claimed in the independent claim 1; or

"a first bit line comprising a distributed series diode with a metal layer, a semiconductor layer, and a material layer disposed between the metal layer and the semiconductor layer, the distributed series diode extending along an entire length of the bit line such that each of the associated memory cells located along the first bit line is coupled between the distributed series diode and an associated word line" as claimed in the independent claim 21.

Any comments considered necessary by applicants must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comment on Statement of Reasons for Allowance".

### ***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **ANH PHUNG** whose telephone number is **(571) 272-1883**. The examiner can normally be reached on Monday-Friday from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **RICHARD ELMS**, can be reached on **(571) 272-1869**. The fax phone number for the organization where this application or proceeding is assigned is **(703) 872-9306**.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC2800 telephone directory whose telephone number is **(571) 272-2800**.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANH PHUNG whose telephone number is (703) 305-1342. The examiner can normally be reached on MONDAY-FRIDAY 9-5.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866-217-9197** (toll-free).



**ANH PHUNG**  
**PRIMARY EXAMINER**